

wikiFactor: a measure of the importance of a wiki site.

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A new metric is introduced, inspired by the Hirsch *h-index*, to measure the impact of a wiki site. A table of wikiFactors is presented for a number of wikis, in particular those oriented towards scientific topics. The wikiFactor is defined as the number of web pages, wF, that have had $\geq 1000wF$ visits.

INTRODUCTION

The Internet started as being ‘read-only’, but has progressed to being a ‘read-write’ medium, where users now have the ability to modify (some of) the web content they encounter. This sea-change has been denoted as ‘web 2.0’ by Tim O’Reilly. One exemplary piece of web 2.0 software is that of the wiki, first developed by Ward Cunningham in 1994-1995. This new genre of software caught the public eye with the appearance of Wikipedia in 2001. At the time of writing, the English language version of Wikipedia plays host to nearly three million pages of on-line user-changeable content.

It is well known that many of the defining contributions of the information technology age have arisen from the work of scientists, scientific laboratories, or related endeavours. A shining example is the invention of the Internet by Tim Berners-Lee whilst working at CERN. However, it is surprising to note that the wiki phenomena has, so far, received very little uptake amongst scientists [1, 2], although sooner or later this situation will have to change [3].

In this paper a new metric is proposed to measure the importance of a wiki site. This metric is based on the Hirsch *h-index*.

THE HIRSCH H-INDEX

The Hirsch *h-index* [4] is defined as the number of papers, h , that have $\geq h$ citations. This simple metric has proved to be highly popular. For example, it is now included as one of the functions in the ISI Web of Science.

WIKIFACTOR

The new metric proposed in this paper is that of the wikiFactor (wF). It is based on precisely the same style of measure as the *h-index*, but with two differences; the first is that it examines hits on web pages rather than citations of a publication, and secondly, there is a factor of a thousand. In other words the wikiFactor is defined as the number of pages that have had $\geq 1000wF$ hits.

Worked example

The wikiFactor of a wiki site can be calculated in a matter of seconds. For example, a wikiFactor of 9 implies that the ninth most popular page has received 9,000 or more hits or visits, whereas the tenth most popular page has not yet reached 10,000 visits. In Table I the wikiFactor has been calculated for a number of science-oriented wikis.

TABLE I: A sample (hyperlinked) list of science oriented wiki that have a wikiFactor > 1 .

Wiki name	field	wikiFactor
OpenWetWare	biology	25
Qwiki	quantum physics	17
Folding@Home Wiki	proteins	14
Quantiki	quantum physics	12
Plastics Wiki	plastics	9
Mathsoc wiki	mathematics and physics	7
SklogWiki	thermodynamics	7
Plasma-Universe.com	plasma	6
Psychology Wiki	psychology	6
NMR Wiki	magnetic resonance	4
Proteopedia	proteins	4
PDBWiki	biology	2
The Tangent Bundle	physics	2

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